

REMARKS

In the above-referenced Office Action, the Examiner rejected claims 11, 14-15, 17-18, 28, and 31-43 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; rejected claim 37 under 35 U.S.C. § 112, second paragraph, as being indefinite; rejected claims 1, 4-6, 10-11, 14-15, 20, 23-24, 28, 32-35, 38-39, and 41-42 under 35 U.S.C. § 103(a) as being unpatentable over Bullock et al. (U.S. Patent No. 6,065,824, hereinafter Bullock1), in view of Gibson et al. (U.S. Patent No. 6,161,916, hereinafter Gibson), and/or Bullock et al. (U.S. Patent No. 5,835,817, hereinafter Bullock2), and/or Skene et al. (U.S. Patent No. 6,616,260, hereinafter Skene), and/or Hepworth et al. (U.S. Patent No. 3,975,712, hereinafter Hepworth); rejected claims 25 and 31 under 35 U.S.C. § 103(a) as being unpatentable, over Bullock1, Gibson, Skene, Hepworth and further in view of Barbour et al. (U.S. Patent No. 6,476,928, hereinafter Barbour); and further rejected claims 7-9, 17-18, 26-27, 36-37, 40, and 43 under 35 U.S.C. § 103(a) as being unpatentable over the previous disclosures as applied above to claims 32, 38, 11, 5, and/or 1 and further in view of Ono et al. (U.S. Patent No. 6,943,911, hereinafter Ono).

Applicants have amended independent claims 1, 11, 20, 28, and 38 to further define the invention. Support for the amendments is found in the present application as originally filed. No new matter is believed to have been added.

Applicants have canceled claims 8-9, 17-18, 26-27, 36-37, 40, and 43.

Claims 1, 4-7, 10-11, 14-15, 20, 23-25, 28, 31-35, 38-39, and 41-42 are currently pending. Review and reconsideration of pending claims is respectfully requested.

The Examiner stated that claim 28 claims inserting a reference data stream into a first serial reference data stream. Thus, the first serial reference data stream is data not including the reference data stream, and further stated claims 28 and 31-37 are rejected under 35 U.S.C. § 112, paragraph 1, for failing to comply with the written description requirement.

In response, Applicants submit that first serial data stream is a data stream that includes combination of start, data, sync, error, and stop bits formed with a non-uniform bit pattern and remains a first serial data stream even after the inclusion of the reference data stream into it. Further, the support for the same is found in paragraphs [0024] to [0029] of the application. Therefore, Applicants submit that the rejection of independent claim 28, and its dependent claims 31-37 under 35 U.S.C. § 112, paragraph 1, should be withdrawn.

Further, the Examiner stated that Applicants must disclose that the inventors had possession of the claimed invention at the time the invention was filed and rejected claims 38-43 under 35 U.S.C. § 112, paragraph 1, for failing to comply with the written description requirements. Applicants respectfully submit that independent claim 38 is amended to replace the term “.. data stream module” with the term “..data stream processor” in the claimed invention. Further, support for the term “.. data stream processor” is found in the specification in paragraph [0006] as originally filed and therefore, in light of the amendment, the rejection of independent claim 38, and its dependent claims 39-43 under 35 U.S.C. § 112, paragraph 1, should be withdrawn.

Again with respect to claim 11, the Examiner rejected claim 11 under 35 U.S.C. § 112, paragraph 1, for failing to comply with the written description requirement. Applicants point out that paragraphs [0020], [0022], [0027], and [0030] disclose that the print controller is configured to know in advance about the combination of reference data stream and the original data stream bits that is to be received. Thus, this implies that the command from print host to print head comprises a request for a reference data stream at a reference location within the data stream. Therefore, Applicants submit that the rejection of independent claim 11 under 35 U.S.C. § 112, paragraph 1 should be withdrawn.

Further, Applicants have canceled claim 37. Therefore, the objection of claim 37 under 35 U.S.C. § 112, second paragraph is obviated.

The Examiner then rejected claims 1, 4-6, 10-11, 14-15, 20, 23-24, 28, 32-35, 38-39, 41-42 under 35 U.S.C. § 103 as being unpatentable over Bullock1, in view of allegedly admitted prior art and/or Gibson, and/or Bullock2, and/or Skene, and/or Hepworth.

Amended independent claim 28 is directed to an inkjet printing apparatus that requires, *inter alia*, a print head configured to insert a reference data stream into a first serial data stream at a reference location, wherein the reference data stream is combination of start, data, sync, error and stop bits formed with a non-uniform bit pattern. Regarding claim 28, the Examiner admitted that Bullock1 and Gibson do not distinctly disclose a print head configured to insert a reference data stream into a first serial data stream at a reference location. Further, the Examiner stated that Bullock2 discloses an interface protocol for serial data communication evidencing the beginning of a read/write action, and therefore, shows that the pulses/bits are the reference data and are inserted at a particular location since it evidences the beginning of a read/write action it

must be at the beginning. The Examiner also further stated that Skene discloses using the inclusion of a parity bit in order to detect errors after transmission from memory on a print head to a controller. The Examiner then stated additionally that Hepworth discloses data being shifted out in synchronization with a clock signal and discloses that, after the data is serialized for transmission, inserting a start bit and a trailing stop bit or bits and parity may be included. The Examiner then alleged that it would have been obvious to one of the ordinary skill in the art at the time, invention was made to modify the disclosures. However, Applicants assert that references, alone or in combination, fail to disclose or suggest the claimed invention.

Bullock 2 discloses that in a given data stream various length pulses are employed as reference data to evidence the beginning of read/write action. Those pulses (start bits) are followed by bit-by-bit transfers of data stream, wherein ones and zeroes of these start bits are manifested by different pulse lengths. (Col. 4, Lines 27-32). Thus, Applicants assert that in Bullock2, different pulse lengths mean that these start bits have a uniform bit pattern that varies only as a function of pulse length (i.e., bit pattern remains same and is not varying) and secondly these start bits are being inserted to the total data stream, where the device is configured to search for these start bits alone in order to know the beginning of total data stream. Thus, Bullock2 discloses this start bit is only searched for and this data stream is not a combination of start bits, data, stop bits, error detecting bits and sync bits that are inserted and transmitted to indicate the start or end of a segment in a given total data stream and searched for as a whole at a regular intervals of time by the host after being communicated as a first serial data stream to host as required in the claimed invention. Further even Bullock1, Gibson, Skene, and Hepworth fail to cure the above noted defects of Bullock2. Thus, the cited references either alone or in combination, fails to disclose or suggest the claimed invention. Thus, claim 28 is allowable for at least this reason. Dependent claims 31-35, depending from allowable claim 28, are also allowable for at least the same reasons.

Amended independent claims 1, 11, 20, and 38, having similar limitation as those of allowable claim 28, are also allowable for at least the same reasons.

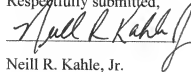
Dependent claims 4-7 and 10, claims 14-15, claims 23-25, and claims 39, 41-42, depending from allowable claims 1, 11, 20, and 38, respectively, are also allowable for at least the same reasons.

Conclusion

Applicants assert in the light of the foregoing remarks this application is in condition of allowance and early passage of this issue is requested. The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this response.

If there are any other fees not accounted for above, the assignee of present application, Lexmark International, Inc., hereby authorizes the Commissioner to charge any such fees, including any extension of time fees, to account of Lexmark International, Inc., Deposit Account No.12-1213.

Respectfully submitted,



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Date: 7-9-2009